5th International Symposium on Resilient Control Systems

The major purpose of this symposium is to extend and endorse particular concepts that will generate novel research and codify resilience in next generation control system designs.

There will be four tracks for this year's symposium:
- **Complex Networked Control Systems**
- **Cyber Awareness**
- **Human Systems**
- **Data Fusion**

Statement of Themes: Energy security and sustainability are important concerns to individuals and industry alike, but even with the promise of a smart grid, increasing research will be necessary to ensure that what is achieved is more resilient in nature. As mobile and industrial robotics form an ever increasing role in both national defense and plant automation, the dependence on these systems elevates a need to ensure continued operability in spite of hazardous environments. Through appropriate sessions and presentations, the symposium will highlight resilience in light of the power system and robotics, bringing to light resilience perspectives important to these applications.

Submission Schedule
- Paper Submission Due: April 2, 2012
- Notification of Paper Acceptance: June 4, 2012
- Final Paper Submission: July 9, 2012
- Symposium Website: http://www.inl.gov/isrcs

Call for Papers
Paper submission will be handled through the symposium website listed above. Please refer to this website for the latest information.

Cost
- $395
- $345 for registration by July 13, 2012
- $50 discount for IEEE IES members
- Half price registration for registered students

Venue/Accommodations
Hilton, Salt Lake City Center
255 South West Temple
Salt Lake City, Utah, United States 84101
Tel: 801-328-2000
Fax: 1-801-238-4888

Schedule
- Day 1: Tutorial & Workshop Sessions
- Day 2: Paper Sessions
- Day 3: Panel Discussions

Topical Areas (including, but not limited to)
- Human Machine Interaction: cognitive modeling, machine learning, digital human modeling
- Human Systems Design: environmental configuration, tailored presentation
- Control Theory: intelligent, reconfigurable, optimal
- Control Framework: supervisory, multi-agent, distributed intelligence
- Control Security: decoys, randomization, diversity, training and cognition, decision making, measurement
- Cyber Architecture: health indicators, defense optimization
- Data Fusion: data reduction, security characterization, data diversity, anomaly detection, response prioritization
- Computational intelligence: machine learning, neural networks, fuzzy logic, evolutionary computation, Baysian belief networks
- Cyber-physical power and energy systems: Real-time communication, protection, control, resilience, reliability, sustainability, efficiency
- Robotic systems: Failure/error tolerance and recovery, adaptable/flexible architectures, multi-level/agent systems, multi-sensor fusion, tele-presence, probabilistic behaviors, performance validation/verification, communications security

Keynote Speakers
- Prof. Tamer Basar, University of Illinois; Others to be announced soon

Benefits
- Opportunity to participate in an evolving focus area within critical infrastructure protection and cyber-physical systems
- Reduced registration fee for IEEE IES members
- Optional trip to area attraction for a nominal fee

General Chairs
- Craig Rieger, Idaho National Laboratory, craig.rieger@inl.gov
- Milos Manic, University of Idaho, misko@uidaho.edu

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- Michelle Blacker, michelle.blacker@inl.gov
- Jodi Grgich, jodi.grgich@inl.gov

Technical Program Chairs
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- Saurabh Amin, MIT

Publication Chair
- Deborah McQueen, University of Idaho

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- Human Systems: Prof. Barrett Caldwell, Purdue University
- Cyber Awareness: Prof. Eugene Santos, Dartmouth College
- Data Fusion: Prof. Devendra Garg, Duke University

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